AMENDMENTS TO THE DRAWINGS

Replacement drawings of Figures 1-7 are submitted concurrently herewith under a separate cover letter.

REMARKS

In view of the above amendments and the following remarks, reconsideration of the objections and rejections and further examination are respectfully requested.

The specification and abstract have been reviewed and revised to improve their English grammar, as well as address the informalities identified in item 3 on page 2 of the Office Action. The amendments to the specification and abstract have been incorporated into a substitute specification and abstract. Attached are two versions of the substitute specification, a marked-up version showing the revisions, as well as a clean version. No new matter has been added.

Proposed drawing amendments are submitted herewith under a separate cover letter. Specifically, as requested by the Examiner in item 2 on page 2 of the Office Action, Figures 1-7 are now labeled as prior art. Thus, it is respectfully submitted that the objection in item 2 on page 2 of the Office Action is no longer applicable.

Claims 2-4 were objected to in view of various informalities identified by the Examiner. Claims 2 and 3 have been cancelled and claim 4 has been amended to resolve the problems identified by the Examiner. Thus, it is respectfully submitted that the objection regarding claims 2-4 is no longer applicable

As mentioned above, claims 2 and 3 have been cancelled with prejudice or disclaim of the subject matter recited therein. Further, in general, the subject matter of claims 2 and 3 is now incorporated into independent claims 1 and 12-14. In addition, pending claims 1 and 4-8, and 11-14 have been amended to make a number of editorial revisions thereto. These editorial revisions have been made to place the claims in better U.S. form. These editorial revisions have not been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these editorial revisions should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

Original claim 14 was rejected under 35 U.S.C. § 101 for failure to recite statutory subject matter. Claim 14 has been amended to recite a computer program recorded on a computer-readable recording medium. Thus, because claim 14 now recites patentable subject matter, it is submitted that the Examiner's rejection under 35 U.S.C. § 101 is inapplicable to the amended claim 14.

Claims 1, 6-10, and 12-14 were rejected under 35 U.S.C. § 102(e) as being anticipated by Bertram et al. (U.S. 6,996,098). Further, claims 2-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertram. Finally, claims 11 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bertram in view of Cheung (U.S. 6,781,601). These rejections are believed clearly inapplicable to pending claims 1 and 4-15 for the following reasons.

Each of amended independent claims 1 and 12 includes recitations directed to an apparatus for multiplexing a first stream (formed by combining a first packet stream and null packets) and a second packet stream stored in a packet storage unit and outputting a multiplexed packet stream. Specifically, the apparatus includes a packet replacement unit which includes, (1) an address obtaining subunit operable to obtain an address, in the packet stream storage unit, for each location at which starting packets, of predetermined blocks of packets, of the second packet stream are stored, (2) a packet number obtaining subunit operable to obtain a number of packets for each predetermined block of packets of the second packet stream, and (3) a packet replacement subunit operable to generate the multiplexed packet stream by replacing at least some of the null packets of the first stream detected by a null packet detection subunit with the packets of at least one predetermined block of the second packet stream, in sequence, and starting from the starting packet at the address obtained by the address obtaining subunit. The Bertram and Cheung references, or any combination thereof, fail to disclose or suggest distinguishing features 1-3 and the multiplexed packet stream resulting therefrom, as recited in independent claims 1 and 12.

Rather, Bertram merely teaches an apparatus for injecting information assets into a content stream. Specifically, Bertram teaches that content 130 is interjected with null packets by a transport packetizer 135 and that the content 130 with the null packets is stored on a content storage 140 device (see abstract, Fig. 1). Further, Bertram teaches that information assets are stored on an asset storage device 125. Bertram also teaches that a transport processor 150 replaces the null packets of the content stored on the content storage device 140 with the information assets stored on the asset storage device (see Fig. 1; and col. 5, lines 28-32).

Thus, it is clear that Bertram discloses the use of information assets, but does not disclose or suggest the second packet stream including predetermined blocks of packets, each predetermined block of packets including a starting packet, as recited in claims 1 and 12. Specifically, Bertram does not disclose or suggest that the information assets include predetermined blocks of packets, each predetermined block including a starting packet.

Further, Bertram discloses storing information assets and injecting any portion of the information assets into the content, but does not disclose or suggest the address obtaining subunit operable to obtain an address, in the packet stream storage unit, for each location at which the starting packets are stored, as recited in claims 1 and 12. Thus, it is clear that Bertram merely teaches storing and injecting information assets, but does not disclose or suggest the features of the address obtaining unit as discussed above (i.e., obtaining the address for each location).

Moreover, Bertram's disclosure of storing and injecting information assets is not a disclosure or suggestion of the packet number obtaining subunit which obtains a number of packets for each predetermined block of packets of the second stream, as recited in claims 1 and 12, because the information assets of Bertram do not have predetermined blocks of packets, as discussed above. Consequently, Bertram does not teach a way to count a number of information asset packets.

In addition, Bertram discloses replacing some or all of the null packets with some or all of the information assets stored on the information asset storage device, but does not disclose or suggest the packet replacement subunit which generates the multiplexed packet stream by replacing at least some of the detected null packets with the packets of at least one of the predetermined blocks of the second packet stream, in sequence, and starting from the starting packet at the address obtained by the address obtaining subunit. It is clear that Bertram does not disclose or suggest the features of the packet replacement subunit, since, as discussed above, Bertram does not disclose or suggest the second packet stream, the address subunit, or the packet number obtaining unit, as recited in claims 1 and 12. Therefore, it is clear that Bertram does not anticipate claims 1 and 12.

Finally, it is noted that Bertram teaches that the content and the information assets are both stored in separate storage devices. On the other hand, the invention of

independent claims 1 and 12 does require two separate storage devices or buffers, but merely recites a single storage unit for storing the second packet stream. This feature of claims 1 and 12 results in a reduction of unnecessary storage of information and an increased speed of multiplexing signals, which are benefits that do not result from Bertram.

In view of the above, it is respectfully submitted that Bertram does not anticipate the invention as recited in amended independent claims 1 and 12. Furthermore, Bertram does not suggest the above-discussed limitations of amended claims 1 and 12. Therefore, it would not have been obvious to one of ordinary skill in the art to modify Bertram so as to obtain the invention of amended claims 1 and 12. Accordingly, it is respectfully submitted that amended independent claims 1 and 12, and dependent claims 4-11 and 15 are clearly allowable over Bertram.

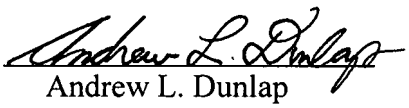
It is also noted that the Cheung was cited in the 35 U.S.C. § 103(a) rejection of dependent claims 11 and 15. However, Cheung also fails to disclose or suggest the above-discussed features of independent claims 1 and 12 which are lacking from Bertram. Thus, for the same reasons discussed above, it is clear that Cheung in combination with Bertram does not disclose or suggest the features of claims 11 and 15. Therefore, no obvious combination of Cheung and Bertram would result in, or otherwise render obvious the invention of dependent claims 11 and 15.

Further, it is also noted that amended independent claims 13 and 14 are method and program claims with similar recitations as claim 1. Thus, it is clear that method and program claims 13 and 14 each recite the second packet stream, obtaining the address, obtaining a number of packets, and replacing the null packets, which are features similar to the distinguishing features recited in independent claim 1. Thus, for reasons similar to those discussed above, it is respectfully submitted that claims 13 and 14 are allowable over the Bertram reference.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Akihiro SATO

By: 
Andrew L. Dunlap
Registration No. 60,554
Attorney for Applicant

ALD(JRF)/nrj
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
October 24, 2007